

RESPONSE

Claims 1-21 were pending in the Application. Claims 1-10, 12, 13 and 21 stand rejected. The Office Action also objects to claims 11 and 14-20. Claims 1, 13, and 21 are amended. Upon entry of the present Amendment, claims 1-21 are pending and presented for reconsideration.

Rejections Under 35 U.S.C. §102

Claims 1-2, 4, 6-10, 12-13, and 21 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,629,144 to Chu et al. (hereinafter “Chu”). The Applicants respectfully traverse the rejection.

Chu

Generally, Chu teaches a system’s recovery after crashing. (Col. 4, lines 5-6 and lines 19-20). “When a client crashes after having already logged onto the server, it is able to relog back onto the server by using its [unique] token. The server permits the client to immediately relog onto the server, without the client having to wait for its entry in [a] dynamic directory maintained by the server to time out and be deleted by the server.” (Col. 4, lines 9-14). Moreover, when the server or network crashes so that the dynamic directory no longer contains an entry for the client, the client can use “the cached information to automatically relog back onto the server without user intervention.” (Col. 4, lines 23-33). In particular, a client logs onto a server and the server fills one of its slots of its dynamic directory with an entry specific to the client, such as the client’s token. (Col. 8, lines 50-53). When the client reboots after crashing, the client is able to “retrieve token 65, and signal to [the] server 55 that it is the rightful owner of entry 61 that was previously created for client 56 in dynamic directory 58.” (Col. 9, lines 19-23). When the server crashes and then reboots, the client “sends a message to the server 55 requesting that it be permitted to log onto the server. ... The information contained in this message is obtained from cache 70, which contains accurate user information for this client before the server crashes. Server 55 permits client 56 to log onto the server ... and recreates entry 72 within dynamic

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directory 58, in accordance with the information conveyed by client 56 a second time.” (Col. 11, lines 33-44).

Rejection of Independent Claim 1 Under §102 In View of Chu

The Office Action suggests that Chu anticipates all of the elements of original claim 1.

Claim 1, as amended, is a method for managing session information in a client-server environment comprising:

- (a) establishing a communication session between a client and a server;
- (b) storing, by the server, session information associated with the communication session between the client and the server in a first log file stored in a persistent volatile memory;
- (c) storing the session information in a cache file stored in a volatile memory of the server; and
- (d) reconstructing, by the server, the cache file after a server failure using the session information stored in the first log.

Claim 1 was amended to recite “storing, by the server, session information . . . ; and reconstructing, by the server, the cache file” Support for the amendment to claim 1 may be found in the Specification, for example, on page 7, paragraph [0028]; page 9, paragraph [0038]; and page 11, paragraph [0044].

The Applicants respectfully submit that Chu does not teach or suggest at least elements (b) and (d) of amended claim 1. Specifically, amended claim 1 teaches, in element (b), that the server stores session information associated with the communication session in a first log file and further teaches, in element (d), that the same server *reconstructs* the cache file after a server failure using the session information stored in the first log.

In contrast to claim 1, Chu does not teach or suggest the server reconstructing its cache file from its first log file after a server failure. Instead, Chu teaches the server recreating a client entry using information “*conveyed by [the] client 56 a second time.*” (Col. 11, lines 42-44). In particular, when Chu’s server fails and reboots, Chu’s server will no longer have a previously stored entry for the client. (Col. 11, lines 15-25). Chu’s client then sends a message to the server requesting permission to log onto the server. (Col. 11, lines 40-44). The information contained

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in this message is obtained from the client's cache 70. (Col. 11, lines 38-40). Chu's server allows the client to log onto the server, and recreates the client's entry from the information *in the client's message*. (Col. 11, lines 40-44). Thus, although amended claim 1 is directed to a server using its own log file to reconstruct its cache file after a server failure, Chu instead teaches the server recreating the client's entry *from information sent in a message from the client*. Chu's server does not recreate the client entry from session information stored in its memory. Thus, Chu does not teach or suggest all of the elements of independent claim 1 as currently amended.

Rejection of Independent Claim 13 Under §102 In View of Chu

The Office Action suggests that Chu anticipates all of the elements of original claim 13.

Amended claim 13 recites a session storage manager for managing session information in a client-server environment, the session storage manager comprising:

- (a) a persistent volatile memory;
 - (b) a first log file, stored in the persistent volatile memory, containing session information;
 - (c) a record cache storing a record of session information;
 - (d) an execution thread appending the session information stored in the record cache to the first log file;
 - (e) a database cache storing the session information after the session information has been stored in the first log file;
- wherein the session storage manager reconstructs the database cache after a server failure using the session information stored in the first log file.

Claim 13 has been amended to recite "wherein the session storage manager reconstructs the database cache after a server failure using the session information stored in the first log file." Support for the amendment to claim 13 may be found in the Specification, for example, on page 11, paragraph [0044].

Because Chu teaches the server recreating the client's entry *from information sent in a message from the client*, Chu does not teach or suggest a session storage manager including "a first log file ... containing session information" and reconstructing its "database cache ... using

the session information stored in the first log file,” as recited in claim 13. Thus, Chu does not teach or suggest all of the elements of independent claim 13.

Rejection of Independent Claim 21 Under §102 In View of Chu

The Office Action suggests that Chu anticipates all of the elements of original claim 21.

Claim 21 recites a session storage manager for managing session information in a client-server environment including:

- (a) means for establishing a communication session between a client and a server;
 - (b) means for storing, by the session storage manager, session information for the communication session to a first log file stored in a persistent volatile memory;
 - (c) means for storing the session information in a cache file stored in a volatile memory;
- and
- (d) means for reconstructing, by the session storage manager, the cache file using the session information stored in the first log.

Claim 21 has been amended to recite “means for storing, by the session storage manager, session information . . . ; and means for reconstructing, by the session storage manager, the cache file” Support for the amendment to claim 21 may be found in the Specification, for example, on page 7, paragraph [0028]; page 9, paragraph [0038]; and page 11, paragraph [0044].

The Applicants respectfully submit that Chu does not teach or suggest at least elements (b) and (d) of amended claim 21. Specifically, amended claim 21 teaches, in element (b), means for storing, by the session storage manager, session information for the communication session to a first log file stored in a persistent volatile memory, and in element (d), means for reconstructing, by the session storage manager, the cache file using the session information stored in the first log.

As described above with respect to amended claims 1 and 13, and in contrast to claim 21, Chu does not teach or suggest means for reconstructing, by the session storage manager, its cache file from its first log file after a server failure. Instead, Chu teaches the server recreating a client entry using information “*conveyed by [the] client 56 a second time.*” (Col. 11, lines 42-44). In

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particular, when Chu's server fails and reboots, Chu's server will no longer have a previously stored entry for the client. (Col. 11, lines 15-25). Chu's client then sends a message to the server requesting permission to log onto the server. (Col. 11, lines 40-44). Thus, although amended claim 21 is directed to means for reconstructing, by the session storage manager, its cache file after a server failure, Chu instead teaches the server recreating the client's entry *from information sent in a message from the client*. Chu's server does not recreate the client entry from session information *stored in its memory*. Thus, Chu does not teach or suggest all of the elements of independent claim 21 as currently amended.

Rejection of Dependent Claims Under §102 In View of Chu

Applicants respectfully submit that claims 2, 4, 6-10, and 12 are patentable because they depend on patentable independent claim 1, as described above.

Therefore, in light of the foregoing reasons, Applicants respectfully request that the rejections under 35 U.S.C. §102 based on Chu be reconsidered and withdrawn.

Rejections Under 35 U.S.C. §103

The Office Action rejects claims 3 and 5 under 35 U.S.C. §103(a) as being unpatentable over Chu as applied to original claims 1 and 4, and further in view of U.S. Patent Application No. 09/316,752 to Gusler et al. (hereinafter "Gusler"). The Applicants respectfully traverse the rejection.

As described above, Chu teaches a system's recovery after crashing. (Col. 4, lines 5-6 and lines 19-20). "When a client crashes after having already logged onto the server, it is able to relog back onto the server by using its [unique] token. The server permits the client to immediately relog onto the server, without the client having to wait for its entry in [a] dynamic directory maintained by the server to time out and be deleted by the server." (Col. 4, lines 9-14). Moreover, when the server or network crashes so that the dynamic directory no longer contains an entry for the client, the client can use "the cached information to automatically relog back onto

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the server without user intervention.” (Col. 4, lines 23-33). When the server crashes and then reboots, the client “sends a message to the server 55 requesting that it be permitted to log onto the server. ... The information contained in this message is obtained from cache 70, which contains accurate user information for this client before the server crashes. Server 55 permits client 56 to log onto the server ... and recreates entry 72 within dynamic directory 58, in accordance with the information conveyed by client 56 a second time.” (Col. 11, lines 33-44).

As described above, Chu does not teach or suggest reconstructing, by the session storage manager and after a server failure, its cache file from the first log file that the session storage manager previously created. Gusler fails to remedy the deficiencies of Chu. Generally, Gusler teaches a distributed data processing method and system for backing up data on a computer. (Col. 1, paragraph [0010]). Gusler creates a backup image of the data in the computer and stores the backup image in a location in the computer. (Col. 1, paragraph [0010]). Gusler fails to teach or suggest, however, any type of “storing ... of session information”, as recited by amended claim 1. Moreover, Gusler does not teach or suggest storing session information in any type of “first log file” or in a “cache file”, as recited by amended claim 1. Additionally, Gusler fails to teach or suggest “reconstructing ... the cache file after a server failure using the session information stored in the first log,” as recited by amended claim 1. Applicants respectfully submit that, therefore, claims 3 and 5 are patentable over Gusler, alone and in combination with Chu, and request reconsideration and withdrawal of the rejection of claims 3 and 5 under 35 U.S.C. §103.

SUMMARY

Claims 1-21 were pending in the Application. Applicants request that the Examiner reconsider the application and claims 1-21 in light of the foregoing Amendment and Response, and respectfully submit that the claims are in condition for allowance.

If, in the Examiner's opinion, a telephonic interview would expedite the favorable prosecution of the present application, the undersigned attorney would welcome the opportunity

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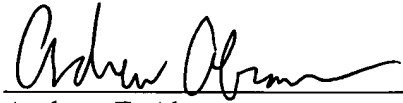
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to discuss any outstanding issues, and to work with the Examiner toward placing the application in condition for allowance.

Respectfully submitted,



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